

In re: Hargett, Jr. et al.
Serial No. 10/064,718
Filed: August 9, 2002
Page 5

Remarks

Applicants note with appreciation the Examiner's courtesy and professionalism during the recent telephone interview.

As set forth above, in response to the December 29, 2003 office action, independent claims 1 and 38 have been amended.

During the interview and as reviewed in the Interview Summary (Paper No. 13), the Examiner raised the concern that the open-ended language of Claim 1 could read on the structure disclosed in Giraud (5,556,673) because Claim 1 as previously pending did not exclude the glass beads of the Giraud structure.

Therefore, in response, Applicants have amended claims 1 and 38 to modify the open-ended preambles and replace them with the phrase "consisting essentially of," which has a well-understood meaning; i.e., that the invention necessarily includes the listed ingredients and is open to unlisted ingredients that do not materially affect the basic and novel properties of the invention. Because Giraud's glass beads would materially affect the properties of the claimed structure, the amended language excludes their presence. With the beads absent, Claim 1 no longer reads on Giraud under the previously applied interpretation and thus Giraud cannot be applied as a § 102 reference against Claim 1.

With respect to the § 102 rejections based on the Bennett patent, Applicants again respectfully submit that Bennett fails to disclose or suggest contiguous yarns as part of the pressure vessel structure. In previous office actions, some aspects of which are incorporated by reference into the most recent office action, the Examiner has argued that Bennett's use of parallel yarns or filaments is identical to the claimed invention's use of contiguous yarns or filaments. Applicants respectfully repeat their incorporation of the definitions of the terms contiguous and parallel and the differences between these two definitions¹.

¹ Contiguous: 1: being in actual contact : touching along a boundary or at a point; 2 of angles : ADJACENT; 3 : next or near in time or sequence; 4 : touching or connected throughout in an unbroken sequence <contiguous row houses>;

In re: Hargett, Jr. et al.
Serial No. 10/064,718
Filed: August 9, 2002
Page 6

Furthermore, Applicants have already demonstrated that they are entitled to use the term contiguous to describe the claimed structure. Contiguous yarns are clearly shown in Figures 4 and 5 and the use of this adjective in the claims to more clearly highlight the differences from the car is entirely appropriate.

The Examiner has also previously misinterpreted Figure 2 of Bennett to interpret the threads 53 as contiguous yarns. This point may also have been discussed in the interview.

Accordingly, because Bennett does not include contiguous yarns, Bennett does not include all of the recitations of the independent claims (1 and 38) within its four corners, and thus Bennett must be removed as a § 102 reference as against the pending claims.

With respect to the obviousness rejection based on Bennett, Applicants first incorporate by reference the arguments presented in Applicants' response to the previous office action. To repeat one such argument briefly, the claimed invention solves a problem presented by the Bennett vessel (the patent to which is commonly assigned with the claimed invention). Namely, Bennett discloses an earlier example of a composite vessel that will—and is intended to—distort under high pressures as a safety feature. Once the Bennett vessel is distorted, however, it is no longer useful. The claimed invention provides an improvement (nonobvious) over the Bennett structure.

From the standpoint of the present amendments, Applicants point out that the "consisting essentially of" language which has been added to the preamble of both of the independent claims now distinguishes the claims even more clearly from Bennett. In particular, because the windings are recited as consisting essentially of contiguous yarns, the language of the claim now precludes the type of fiber-reinforced structures disclosed by Bennett.

As highlighted in applicants last response, column 2 lines 27-37 of Bennett teach that the structure is best formed by having a thermoplastic polymer fill voids between and among

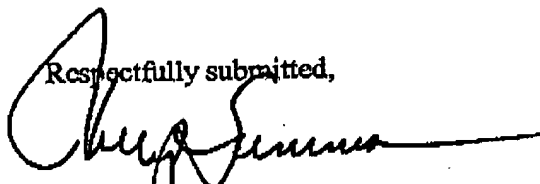
parallel:(in part) l a : extending in the same direction, everywhere equidistant, and not meeting
<parallel rows of trees> b : everywhere equally distant <concentric spheres are parallel>

In re: Hargett, Jr. et al.
Serial No. 10/064,718
Filed: August 9, 2002
Page 7

yarns or braids. Bennett includes similar statements at column 6 lines 31-39. Accordingly, the presence (in Bennett) of polymer in the "interstices" or "voids" between and among yarns or braids is inconsistent with the claimed structure that is limited to contiguous yarns.

Therefore, Applicants submit that the amended claims define over the references as applied to date. Allowance of the claims is thus respectfully requested at the earliest possible opportunity.

Respectfully submitted,



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I hereby certify that this correspondence is being transmitted by facsimile to the U.S. Patent and Trademark Office, c/o Technology Center 1700, Attn: Examiner Chris Bruenjes, at facsimile number 703-872-9310 on April 26, 2004.



Philip Summa